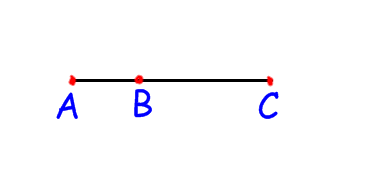
Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_ Per.: \_\_\_\_\_\_\_\_

**2.5 Segment Addition Postulate**



AB + BC = \_\_\_\_\_\_\_ because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. AB = 2x + 3, BC = 4x – 1. If AC = 20, find the AB and BC.

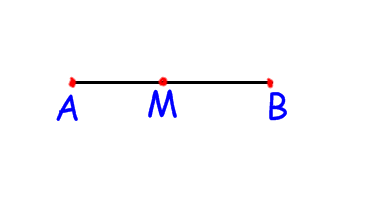
2. AB = 4, BC = 3(x – 4). If AC = 5x – 20, find the lengths of BC and AC.

3. AB = 4(x + 5), BC = 3(x – 8), and AC = 45. Find the AB and BC.

4. AB = x2, BC = 2x – 3, and AC = 21. Find the value of x, and find AB and BC.

A **midpoint** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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M is the midpoint of .

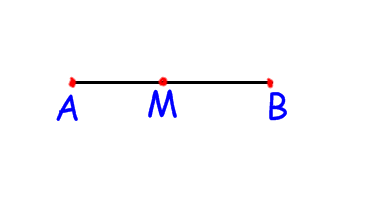
AM = \_\_\_\_\_\_\_\_\_\_ AM = \_\_\_\_\_\_\_\_\_\_

MB = \_\_\_\_\_\_\_\_\_\_ AB = \_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_

1. AM = 2x – 4 and AB = 24. Find the value of x.

2. AM = 36 and MB = 4x + 2. Find the value of x.

3. AM = 4x – 12 and MB = 2x + 4. Find AM, MB, and AB.

 M is the midpoint of .

4. AM = x2 – 4x and AB = 24. Find x.

5. AM = x2 + 9 and MB = 2x + 12. Find AM, MB, and AB.